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Round-Up, Fort Hays Experiment Station, April 12

Come and See the Results of this Year's Live Stock Experiments

Round-Up at Hays, April 12, 1919

Saturday, April 12, is the date set for the Sixth Annual Round-up at the Fort Hays Experiment Station at Hays. All present will receive a circular showing the experiments with 379 head of cattle. Addresses will be made by speakers of national importance.

The progress of the Fort Hays Experiment Station work for the past year will be explained by Superintendent Charles R. Weeks. The livestock experiments will be analyzed by Dr. C. W. McCampbell, professor of animal husbandry in the Kansas State Agricultural College.

Addresses will be made by President W. M. Jardine and Dean F. D. Farrell, Kansas State Agricultural College; H. J. Waters, Editor of the Weekly Kansas City Star; C. E. Yancey, of the U. S. Meat Administration and other prominent men.

The Rounds-Ups at Hays create more interest each year. The attendance grew from not more than a few hundred in each of the earlier years to more than 1,000 in 1917, and more 2,000 in 1918. The experiment on development of breeding heifers which has been of so much interest the last three years, has been continued, and results to date will be given. A most important new experiment to be reported on at this Round-Up is that of comparing Russian thistle hay with alfalfa hay for wintering cattle.

Live Stock on The Fort Hays Experiment Station

The live stock department of the Fort Hays Experiment Station, while in itself may not show a phenominal profit, it is to a great extene responsible for the financial showing that the Station is able to make, even during bad years. Through the careful cost accounting system used at the Station, every bit of man hour. horse hour, machine equipment, engine hours, overhead expense, interest, depreciation, etc., are carefully charged against the cattle;while they are credited with all increase, by-products, etc. The difference between the charges and credits shows a balance in favor of the live stock, but the balance is not as great as the general profit of making live stock a part of the farm scheme.

The reason for this is that cattle, sheep and hogs furnished a market for a lot of feed for which there would be no other market, and with which the fields are credited. Quite a proportion of the food used in wintering our live stock is wasted on a grain farm, and some of it is even burned during better years; therefore our general farm profit is increased more than the live stock records might indicate.

Again, cattle increase the farm profit by making it possible to furnish farm work the year round for desirable men who might not otherwise be secured during the rush period. These men become acquainted with the fields, machinery and methods of management of the farm, and therefore are very much more efficient, thus reducing the total labor used on the farm.

It is a well known fact that a one-crop farm system, where wheat, cotton or corn is the chief crop, the farmer pays a higher price for less efficient labor during the rush period that the crop brings.

The live stock at the Ft. Hays Experiment Station consists of four grades of beef herds, representting each of the four leading beef breeds. A high grade Holstein herd at the dairy with a good start towards a pure bred herd; Shropshire sheep and Duroc Jersey hogs complete the list of live stock. The last year's records of the Experiment books show that cattle made a good profit; that sheep made a remarkable profit and that hogs barely broke even; therefore for the coming winter, hogs will be reduced to a breeding herd and the pigs raised on alfalfa have been sold to be used in experiment work at the State Agricultural College, before it became necessary to feed them any high priced grain. The sheep herd, showing so great a profit, is being increased to a good size where it will pay to herd then in cleaning up fields that are not fenced.

The dairy consists of 160 acres of land in four-year rotation, consisting of fallow, wheat and two years of sorghums for grain or silage. Connected with this is 300 acres of pasture. This is run on a commercial basis to demonstrate what the possibilities are of making a dairy some distance from town a paying proposition, using such feeds as are available in Western Kansas.

The beef herd consist of 602 head, 255 of which are Herfords. The next larger herd is Galloways and Shorthorns the smallest. This number of cattle exceeds the amount of pasture available in spite of the fact that the Station owns 2000 acres in seven pastures. Therefore, the Station rents 3200 acres of range pasture 20 miles southwest of us. The reason for keeping more cattle than the Station pasture will support is to keep the size of herd in proportion to the amount of roughage furnished by the Station in making its rotation and croppage system profitable. To prevent a shortage of feed during any of our short crop years, silos furnish a reserve storage for any surplus feed that may be produced in any one year of shortage.

The Fort Hays Experiment Station uses a great deal of straw for winter feeding of cattle. At experiment carried on with live stock indicates that the cheapest winter ration is about 30 pounds of silage, a pound and a half of coton cake, and all the straw they will eat. The same experiment show that cattle will eat form six to twelve pounds of straw when fed silage, while dry fed cattle will eat from three to six pounds per day. Cattle thus wintered on silage, cake and straw come through the winter in better shape than they started in the fall. Thus the experimental work on the Station that indicates better results, is always tried out on large herds before being recommended for general use.

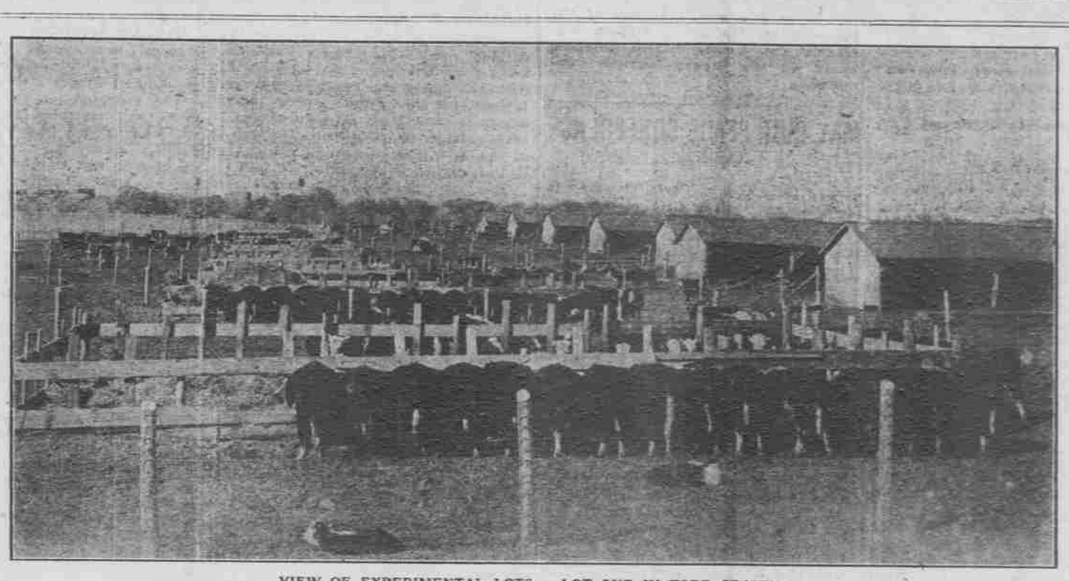
The advantage that we have of thus trying out these experiments on a large scale is peculiar to this Station, on account of size, acreage of crops grown and live stock handled.

To test in a large way the advantage of cross bred calves in feeding value, 100 black cows have been crossed during the past two years on pure bred shorthorns bulls. The calves from last year were fed experimentally at the State Agricultural College. This year's calves from this herd have not yet been disposed of, but careful records on the feed value of these will be kept and will be available to the public.

Under range conditions, with the difficulty of furnishing water to some of the pastures, and the distance our cattle have had to go to secure what water could be furnished, the Shorthorns have suffered the most, with the Herefords and Galloways coming in the best shape out of these trying range conditions.

All of the cattle are rounded up from the range after the 1st of November. The calves are vaccinated for blackleg, the males are altered while on the range with the cows until they are in good physical condition. The first week in November everything will be brough back from the pasture and the calves weaned and the cows put back on the pasture until the more distant buffalo grass is consumed. The calves then will be grassed upon the short fourth crop of alfalfa until they have thoroughly recovered from weaning and can be put upon regular feed rations. By the first of December the experiment cattle, some of which have been carried on the same experiment for years, will be sorted up and lotted, to be carried through the coming winter experimental work. What cattle are not used in the experimental lots are then grazed on buffalo grass pasture and fed rough feed with qossibly a little cake right on the grass. The range cattle will be divided into two lots this coming winter; one lot will be fed Silage, cake and buffalo grass, while the other will be fed cake and possibly roughage on buffalo grass. This will give us an indication of whether silage will pay under the range conditions that prevail in Western Kansas.

In spite of the fact that a great deal of the live stock work on this Station includes extensive experimental work, live stock in itself has been in no small degree responsibe for the profitable cropping and farming system employed at the Station.



VIEW OF EXPERIMENTAL LOTS. LOT ONE IN FORE GROUND

Experimental Work at the Fort Hays Experimentl Station, Season of 1918 and 1919

379 head of live stock were used in experimental work at the Fort Hays Experiment Station this season, while the rest of the cattle were used in the range experimental work. These experiments began December 20 and will close before the Annual Round-Up of April 12. The stock men of Western Kansas will meet at the Experiment Station during this Round-Up, to see for themselves the results of these feeding experiments, which are planned with the conditions of the Western Kansas stock man in mind.

An experiment of long standing, and the one which has attracted the most attention, is the one developing breeding heifers. This began four years ago with 80 uniform Hereford heifer calves. One half was fed as the average Western Kansas range cattle were fed, while the other half was fed the best ration possible. One half of the optimum fed heifers were bred to calve at two years old, the others being kept open. One half of the normal fed heifers were also bred to calve at two years old, the others being kept open. Careful notes were then made upon the calves resulting from the several lots and the developments of the cows themselves. The next year half of the heifers had calves for the second time, while half of each lot had calves at three years old for the first time, the object being to see what effect feeding would have upon the development of the cows and the size of calves, in connection with early breeding. As soon as the cows and calves are sorted, everything will be weighed up again, and the relative weights of the cows and their calves will be recorded. These results will add another year to this experiment and the accumulation of the data will give some very valuable information on whether it pays to feed developing breeding stock more heavily than is usually done.

Another interesting experiment will be a comparison of Russian Thistle hay with alfalfa.

A third group of experiments will compare the results of cotton seed cake and linseed cake as suppliment and dry feed and silage.

Still another experiment which will afford considerable valuable information and which is planned to be carried for a number of years, is a comparison of kaffir silage, kaffir fodder. Exact acreages of each required to winter the cattle will be kept, so that a farmer can tell just exactly how much he can expect off from a given amount of land as stover, as fodder and as silage.

Data has been kept on the cost of wintering herd bulls and heifer calves.

The results of these experiments will be particularly interesting, since a number of them have been runing for a long period to give valuable accumlation of results.

Sixth Annual Round Up Fort Hays Experiment Station

Western Kansas farmers and stockmen who attend the Sixth Annual Round-Up at the Hays Experiment Station April 12 will have an opportunity to observe the results of a series of seven cattle feeding experiments which have been carried on at the Station during periods ranging from one to four years.

One of the experiments which has been running four years, will show at what age it is most profitable to breed heifers. When the experiment was begun eighty Hereford heifers, uniform in size, age and type were selected. They were first separated into two groups, one of which was given the best scientific ration and the other group of which was fed under normal range conditions in Western Kansas.

Later each group was separated into lots. Those in the first lot of each group were bred to clave at two years old, and those in the second lot of each group were bred to clave at three years. Data on the best method of feeding and the best age at which to breed will be completed in this experiment by Round-Up Day. All four lots have a crop of yearling calves and by Round-Up Day most of the cows will have sucking calves by their sides. The yearling calves as well as the sucking calves will be compared to show the results on off-spring of the breeding and breeding tests.

Another experiment will show the relative value of Russian thistle hay and alfalfa hay for wintering cows. Two lots of twenty cows each have been used for this experiment. The first lot was fed a daily ration of twenty pounds of alfalfa, one and one half pounds of cotton cake, and what straw they would eat. The second lot was fed a ration exactly the same as that fed the first, except that an equal amount of Russian thistle hay was substituted for the alfalfa hay.

A third experiment will show the relative value of Kaffir silage and Kaffir fodder. One lot of cows was fed silage and another fodder in such amounts as to keep them in good condition in about the same flesh. The experiment is being conducted on an acre basis, and will show how many acres of fodder are required to equal one acre of silage in feeding value.

Another experiment will show the relative feeding value of cotton seed cake and silage, linseed cake and silage, cotton seed cake and fodder, and linseed cake and fodder. Experiments in wintering yearling heifers and in wintering bulls are also in progress, and results will be anounced on Round-Up Day .

The Hays Experiment Station is unique in that it is operated under actual Western Kansas conditions; it confines itself to practical research work, leaving the abstract to Kansas State Agricultural College; it has the results of its experiments and uses a system at farm management adoptable to the use of the average Western Kansas ranch.

The Station farm contains 3,600 acres, and rents an additional 3,200 acres of range pasture. From 800 to 1,500 head of livestock are kept on the farm all the time. About 650 acres of wheat, 400 acres of sorghum for silage, 325 acres of alfalfa and 100 acres of barley are grown each year.

Stockmen, Have You Met Your Friend from Africa?

A lot of swell dressed, oily tongued agents who come around from some big city or foreign parts don't pan out well. The same thing generally works when we send off for some new crop with a high sounding name, and a great long pedigree, unless experiment stations have tried it and proved its value.

And so it turned out that "African Kafir" and "African Millet," puffed up with a flattering introduction' didn't do as well as some sorghums we already had.

But Sudan grass, a sort of modest slender little country cousin to the sorghums, came in quietly in 1909 from Africa without a stir.

The Fort Hays Experiment Station has grown it every year since 1913, and recommends Sudan Grass as a friend thet stockmen should know. It has yielded an average of one and one-half to two and one-half tons of hay a year. The hay is especially valuable for work horses, but not quite equal to alfalfa for other stock.

Sudan grass should be planted and handled like sorghum. It yields only three-fourths as much hay per acre as Red Amber sorghum, but is so much finer stemmed as to make up largely for this.

Sudan grass yields one fourth more than the best millet at Hays, and is a much better and safer feed, especially for horses.

RESOLUTIONS ADOPTED BY COUNTY AGENTS OF WESTERN DISTRICT, AT CLOSE OF MEETING AT FORT HAYS EXPERIMENT STATION, MARCH 24 TO 26.

Whereas: The conference held at Hays has proven to be of exceptional value to the agents in the western part of the state,

Therefore: Be it resolved that we, the County Agents assembled at the Fort Hays Experiment Station, wish to commend the way Mr. Geo. E. Piper has conducted the meeting. Further, we wish to recommend the use of the informal program as a means of gaining solutions for immediate problems for the people of our particular localities. Moreover, we are very highly pleased with the committee form of program developed by Mr. Piper in obtaining the usable data from the records of this Station. Inasmuch as this method has made this conference a means of obtaining facts for immediate and direct application, and comes nearer approaching the ideal of what we believe a conference of this nature should be; we hope this plan of program will be further developed in future conferences.

Be it resolved: That we wish to express our appreciations to Mr. Weeks and other members of his office and Station staff for their courteous treatment, and aid in interpreting the records of this Station.

Be it resolved: That we extend a vote of thanks to the Hays Chamber of Commerce for their cordial welcome to us, and for the luncheon served at their council meeting, Tuesday, March 25.

Be it resolved: That one copy of these resolutions be sent to Dean Umberger, one copy delivered to Mr. Piper, one left with Mr. Weeks and one copy published in the Hays papers.

Signed:

R. B. Medlin
Carl L. Howard
Tom Clarke
A. C. Hancock
J. W. Thornburgh
G. E. Cassel
Geo. W. Sidwell
A. B. Kimball
H. J. Adams
E. F. Tinker
R. P. Schnacke.

Where to Sow More Alfalfa.

The alfalfa acreage in Western Kansas should be increased chiefly on bottom lands where ground water is within fifteen or twenty feet, but not closer than six or eight feet. The crop should also be more extensively grown under irrigation. More seedings should be made too on upland areas that absorb runoff water from adjoining fields.

On bottom land, alfalfa is the best paying crop that has been grown at the Fort Hays Experiment Station. The average annual yield there is usually two tons or more per acre. The Station has gradually extended its alfalfa culture on such land to 305 acres.

Where Not to Sow More Alfalfa.

Attempts at increasing the alfalfa acreage on average or less favorable uplands in the western half of Kansas, should be quite limited. Even with the best varieties and methods, alfalfa growing on such soils is usually profitable only in favorable seasons and for but two or three years after seeding. Fields rarely exceed one half to one ton per acre.

On upland at the Fort Hays Experiment Station, repeated attempts at alfalfa growing have proved unsatisfactory, either broadcasted or in rows.

Work Sorghum Land Early.

When no fall preparation is made for sorghums, it pays to start work early in the spring. Blank list or disk now, and later do such other work as is needed to have a clean mellow soil at planting time, Early work means cleaner fields, and it saves much cultivation at a later buster time.

Fall listing east and west six inches deep is usually practiced on much land for sorghums at the Fort Hays Experiment Station, as visitors who go over the Station on Round-Up Day, April 12, may see.

Lets Get Those Gophers

The pocket gopher in damaging your alfalfa, grain crops and orchards to the sum of millions of dollars annually. Many alfalfa fields in this part of the state are damaged 10 to 25 per cent by the roots being eaten by this pest and the foilage covered by the mounds. It is generally admitted that the pocket gopher is the most serious crop pest in the alfalfa growing regions.

The farmers pay higher taxes to the pocket gophers than to the assessor.

The other fellow knows that your gophers are worse than his. Are you in the same boat? Don't let George do it. He will fail you every time.

For lasting results in gopher control systematic effort and community co-operation are necessary. There are a number of ways of killing the gopher. For information inquire of the Fort Hays Experiment Station, see your County Agent, or write the Zoology Department, K. S. A. C. Manhattan, Kansas.

The Fort Hays Experiment Station at Hays and the college at Manhattan have gopher poison for sale at actual cost.